

REMARKS

This Amendment is in response to the Office Action of September 20, 2005 in which the Examiner made certain technical objections to the claims. The term "particularly" has been removed from claim 1.

The Examiner rejected claims 1 and 2 as allegedly anticipated by U.S. Patent No. 4,685,039 or Luettich DE2819676.

The Examiner's rejection of the claims is respectfully traversed for the reasons set forth below.

The references cited by the Examiner seem at first to look similar to the arrangement of the present invention. However, the purpose and operation of the references are completely different. For example, the inverters of the references are not freely oscillating. In contrast the inverters of the references receive a timed control signal, and all parallel inverters receive simultaneous control signals. The purpose of the inverters in the references is not to balance the voltages of the capacitors, because they are not capable of that function.

The references cited by the Examiner originate from a time when high voltage or high power switches were not available, and thus for high power applications multiple smaller switches were combined.

The present invention relates to balancing voltages of series connected capacitors which are connected in the intermediate voltage circuit of a frequency converter. These voltages must be balanced somehow. In prior systems the balancing was accomplished by using resistors in parallel with each capacitor. This solution leads to balancing, but as the drawback or significant power dissipation.

The present invention achieves balancing by taking power or accessing from the capacitor that has a large voltage charge on it. This power is used to form a voltage source that can be used as an auxiliary voltage. The operation of balancing this circuit does not need any control signals because it is freely oscillating. The references do not teach that freely oscillating inverters can be used to balance voltages between series connected capacitors as set forth in the amended claims.

In view of the foregoing, it is respectfully requested the Examiner reconsider his rejections of the claims, and the allowance of which is earnestly solicited.

Respectfully submitted,

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